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Publications and other works

(a) International Journals papers

2020

1. Bond strength of fibre-reinforced polymer bars in engineered cementitious composites, **K.M.A. Hossain, S. Alam, M. S. Anwar, K.M. Y. Julkarnine**, Construction Materials, 173(1) 2020, pp. 15–27, <https://doi.org/10.1680/jcoma.17.00020>
2. FATIGUE BEHAVIOR OF GFRP-REINFORCED ECC LINK SLABS UNDER VARIABLE STRESS LEVELS AND NUMBER OF CYCLES, K. Chu, K.M.A. Hossain, and M. Lachemi, Engineering Structures (accepted with revision: March 12, 2020)
3. NUMERICAL INVESTIGATION ON STATIC BEHAVIOUR OF STEEL AND GFRP REINFORCED ECC LINK SLABS, K. Chu, K.M.A. Hossain, and M. Lachemi, Engineering Structures (accepted with revisions, march 29, 2020).
4. Shear behavior of novel hybrid composite beams made of self-consolidating concrete and engineered cementitious composites, **KMA Hossain, S Hasib, T Manzur** - Engineering Structures, [Volume 202](https://doi.org/10.1016/j.engstruct.2019.109856), 1 January 2020, 109856, <https://doi.org/10.1016/j.engstruct.2019.109856>
5. Arrowroot as bio-admixture for performance enhancement of concrete, *S Afroz, T Manzur*, KMA Hossain - Journal of Building Engineering, January 2020, Journal of Building Engineering 30:101313, DOI: 10.1016/j.jobe.2020.101313
6. “Shear Behavior of Lightweight Slag Aggregate Self-Consolidating Concrete Beams.” **Hossain, K. M. A., Sathiyamoorthy, K., and Manzur, T.**, ACI Materials Journal (accepted).
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(d) Invited presentation (Since 1998)

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3. "Self-healing concrete materials and sustainable construction practice", Construction Industry Forum, Dhaka, Bangladesh, March 21, 2017.
4. "Construction industry and sustainability issues in Bangladesh", **K.M.A. Hossain**, Invited presentation, Construction Industry Forum, Dhaka, Bangladesh, May 30, 2015.
5. "High rise buildings in real estate industry of Bangladesh - pros and cons", **K.M.A. Hossain**, Invited presentation, One day seminar sponsored by Real estate association of Bangladesh, Dhaka, December 23, 2013.
6. "Precast industry and high performance concrete - An overview based on Bangladesh and global perspective", **K.M.A. Hossain**, Invited presentation, Construction Industry Forum, Chittagong, Bangladesh, December 21, 2013.
7. "Controlled Low Strength Materials incorporating Cement Kiln Dust – A Feasibility Study", A. Lotfy, **K.M.A. Hossain**, M. Shehata and M. Lachemi, Invited presentation at the Materials Science & Technology 2007 Conference and Exhibit (MS&T '07), September 16-20, 2007 at COBO Center in Detroit, Michigan.
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(e) Journal papers in the communication stage

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2. Modeling for quantitative assessment of self-healing in bacteria incorporated fiber reinforced mortar, Sini Bhaskar, Khandaker M. A. Hossain, Mohamed Lachemi, Gideon Wolfaardt, Marthinus (Otini) Kroukamp, International Journal of Modelling and Simulation (submitted March 23, 2020).
3. Performance of Composite Shear Walls Subjected to In-Plane Cyclic Loading - A Numerical Parametric Study, Khandaker M. A. Hossain, Mojtaba Labibzadeh, Mohsen Bagheri, Abdolghafour Khademalrasoul, Advances in Structural Engineering (March 3, 2020)
4. “Flexural strength and stiffness of ECC coupling slabs in coupled shear wall structures”, **K.M.A. Hossain** and *R. Issani*, ACI Structural Journal
5. “Fire resistance of axially loaded doubled skin profiled composite wall with ultra-high strength concrete”, **K.M.A. Hossain** and *A. Taormina*, J. Constructional Steel Research
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11. Axial load behaviour of engineered cementitious composite concrete-filled steel tube columns, *K. Chu* and **K.M.A. Hossain**, Composite-Part B Engineering
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14. “Designing framed profiled steel sheet shear wall systems”, **K.M.A. Hossain** and *M. Akram*, J. Constructional Steel Research,
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18. "Behaviour of thin walled composite beam-column frame", **K.M.A. Hossain**, and *M. Akram*, J. Thin walled Structures
19. "Axial behaviour of profiled sheet-dry board-composite panels", **K.M.A. Hossain** and A. *Jahan*, J. Constructional Steel Research
20. "Strength Prediction of RC Slabs with different support conditions using Artificial Neural Network Model", **K.M.A. Hossain**, Neural Computing & Applications
21. "Blended cement using natural Papua New Guinea Limestone", **K.M.A. Hossain**, Advances in Cement Research
22. "Reliability based design of tuned mass damper using Monte Carlo simulation under 2 artificial earthquake records", A. Gholizad, *S. Davood*, O. Mohammadi and **K.M.A. Hossain**, ASCE J. Engineering Mechanics
23. "Development of artificial neural network and regression models to assess the self-healing ability of fly-ash/slag incorporated engineered cementitious composites based on chloride ion permeability", **K.M.A. Hossain**, *A. Jahan, M.S. Anwar*, Neural Computing & Applications (Submitted Sept 1, 2018).

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2. "Fresh and Hardened Properties of Engineered Geopolymer Composite with MgO, M.A. Hossain, K.M.A. Hossain, J. Hasan, T. Manzur, D. Sood, ICCSTE'20 - 5th International Conference on Civil, Structural and Transportation Engineering (ICCSTE'20), Niagara Falls, Canada during June 11 - 13, 2020.
3. Properties of Lightweight Self-consolidating Fibre Reinforced Concrete, K.M.A. Hossain, K.M.Y. Julkarnine, M.A. Hossain, ICCSTE'20 - 5th International Conference on Civil, Structural and Transportation Engineering (ICCSTE'20), Niagara Falls, Canada during June 11 - 13, 2020.
4. Manzur, T., Hasan, M. J., Baten, B., Torsha, T., Khan, M. F. A., and Hossain, K. M. A. (2019). "Significance of Service Life Based Concrete Mix Design in Marine Environment." 7th International Conference on Engineering Mechanics and Materials, CSCE, 12-15 June, 2019, Laval (Greater Montreal), Canada.
5. A. Ehsani Yeganeh, K.M.A. Hossain, FLEXURAL BEHAVIOUR OF FIBER REINFORCED LIGHTWEIGHT SELF-CONSOLIDATING CONCRETE BEAMS, 7th International Conference on Engineering Mechanics and Materials, CSCE, 12-15 June, 2019, Laval (Greater Montreal), Canada.
6. A. Ehsani Yeganeh, K.M.A. Hossain, Experimental investigation on the bending behaviour of exterior beam-column connections made with Engineered Cementitious Composite, Proc. 7th International Conference on Engineering Mechanics and Materials, CSCE, 12-15 June, 2019, Laval (Greater Montreal), Canada.

7. A. Ehsani Yeganeh, S. Dadsetan, K.M.A. Hossain, M. Lachemi, “Experimental investigation on mechanical properties of fiber reinforced lightweight self-consolidating concrete” 2nd International RILEM Symposium - Self-Compacting Concrete (SCC9), Dresden, Germany, 8-11 September, 2019.
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11. Hossain KMA, **Chu K** and Lachemi M. (2018). Behaviour of joint-free bridges incorporating ECC link slabs subjected to environmental conditions. 10th Int. Conference on Short and Medium Span Bridges, Quebec City, August 27.
12. “Performance of new generation of engineered concrete materials in infrastructure applications”, **K.M.A. Hossain**, The Ninth International Conference on Construction in the 21st Century (CITC-9), “Revolutionizing the Architecture, Engineering and Construction Industry through Leadership, Collaboration and Technology”, March 5th-7th, 2017, Dubai, United Arab Emirates.
13. “Self-healing capability of MgO based engineered cementitious composites”, M.A.A. Sherir, **K.M.A. Hossain** and M. Lachemi, 10th ACI/RILEM International Conference on Cementitious Materials and Alternative Binders for Sustainable Concrete to be held in Montreal, Canada, October 2-4, 2017.
14. Flexural fatigue performance of bridge decks with GFRP bar reinforced UHPC joint, K.M. A. Hossain and C. Mak, 9th New York City Bridge Conference at the Marriott New York East Side - August 21-22, 2017.
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17. “Multi-functional cementitious composites with sensing and healing capabilities”, H. Siad, M. Lachemi, M. Sahmaran and K.M.A. Hossain, The Ninth International Structural Engineering and Construction Conference, ISEC-9, Resilient Structures and Sustainable Construction, Valencia, Spain July 24-July 29, 2017.
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